



@ High Luminosity  
Preliminary results

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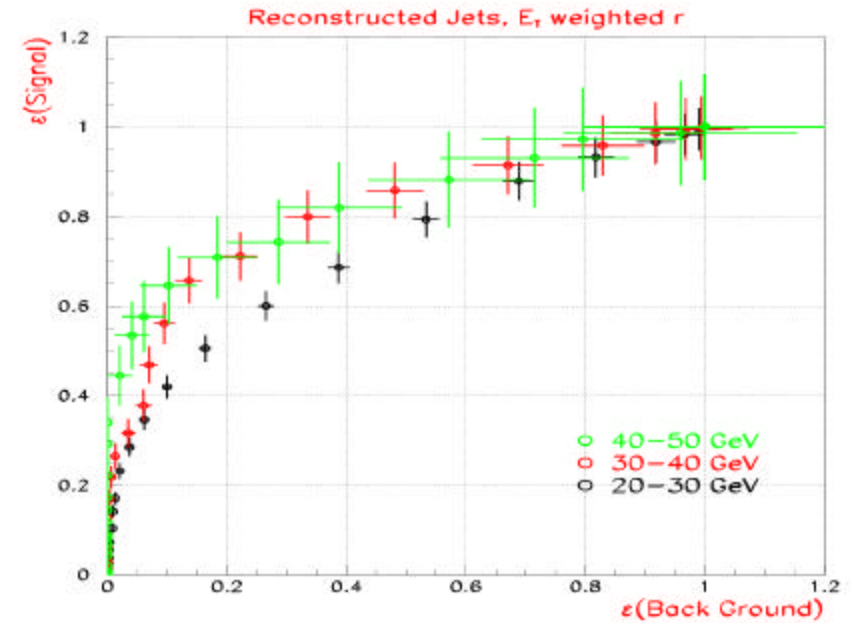
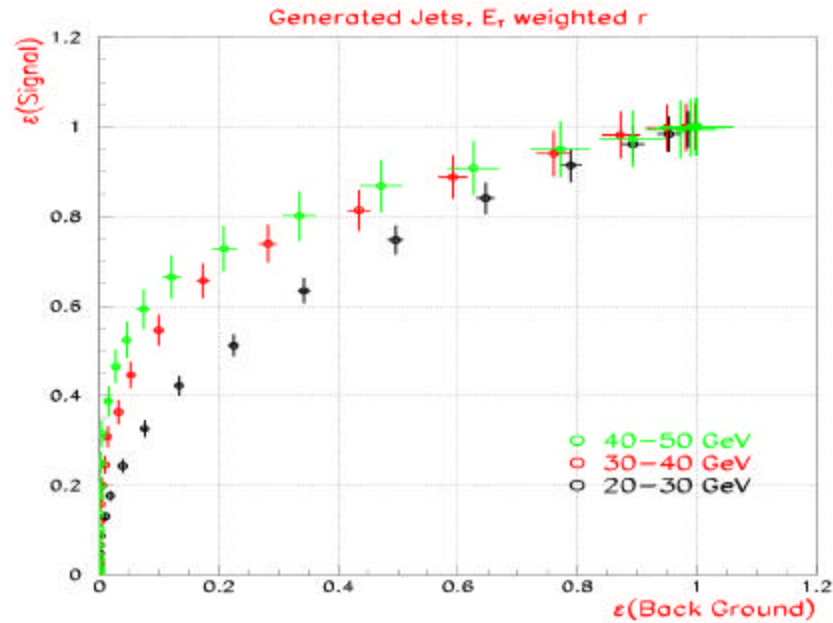
Presently @ University of Maryland



# Recall

- Two shape variables were tried
  - $E_T$  weighted  $r$
  - $E_T$  fraction in cone  $r < r_{\text{jet}}$
- Maximum  $E_T$  contribution from single vertex used to tag jets real or jets
  - If  $E_t^{\text{mx}}_{\text{svx}} \geq 0.5$  real jet otherwise fake jet
- See my 24<sup>th</sup> April talk for more detail

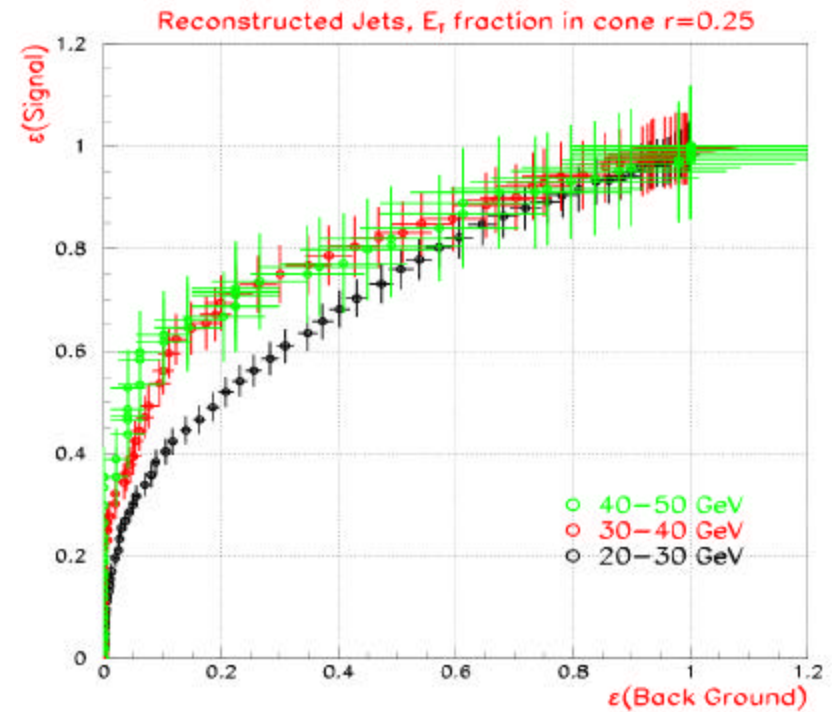
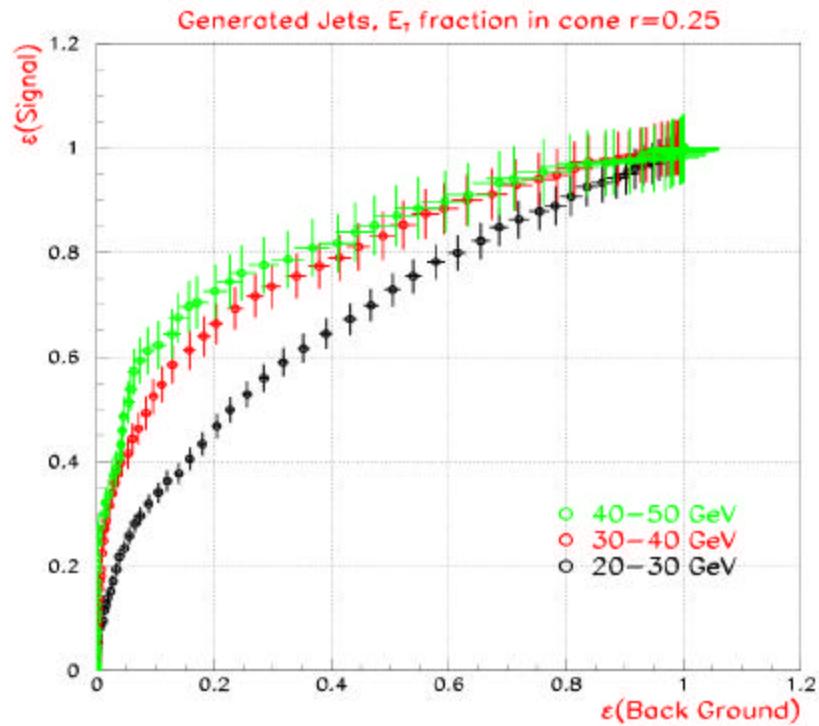
# Signal vs Background Efficiency



$E_T$  weighted  $r$  used as a cut variable

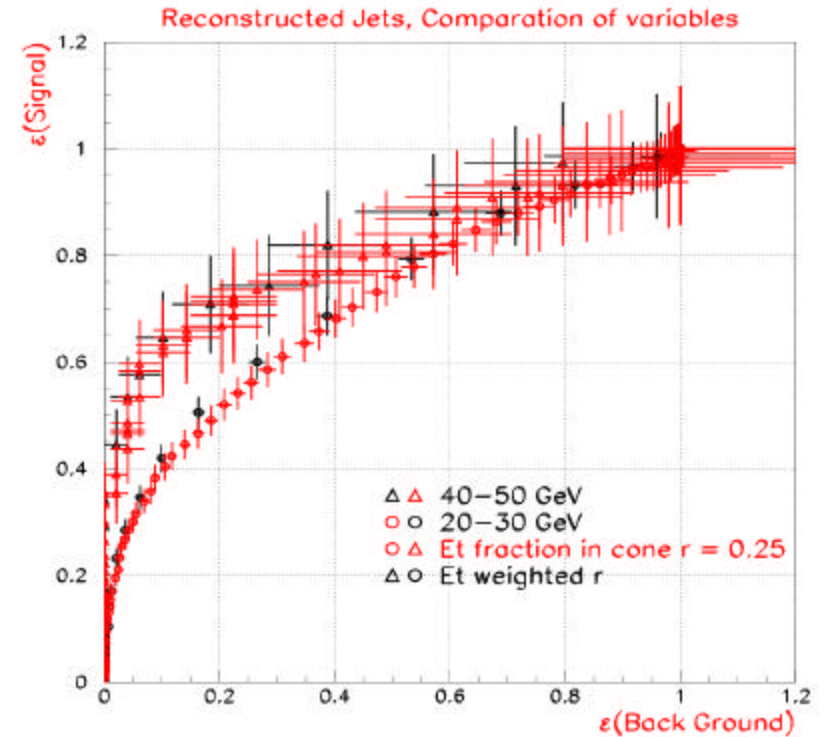
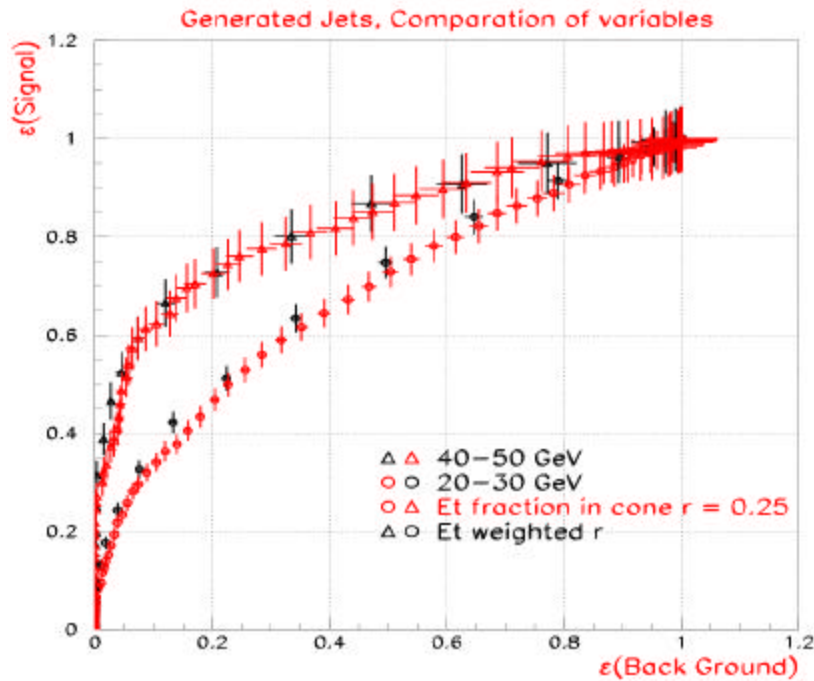
Results are shown for 3 different energy bands (20-30, 30-40 and 40-50 GeV)

# Energy Fraction



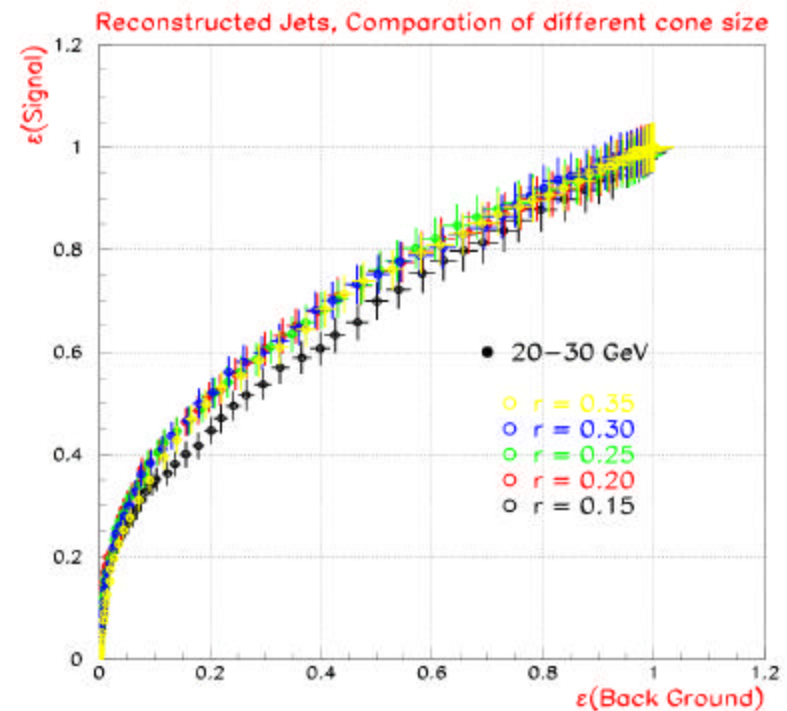
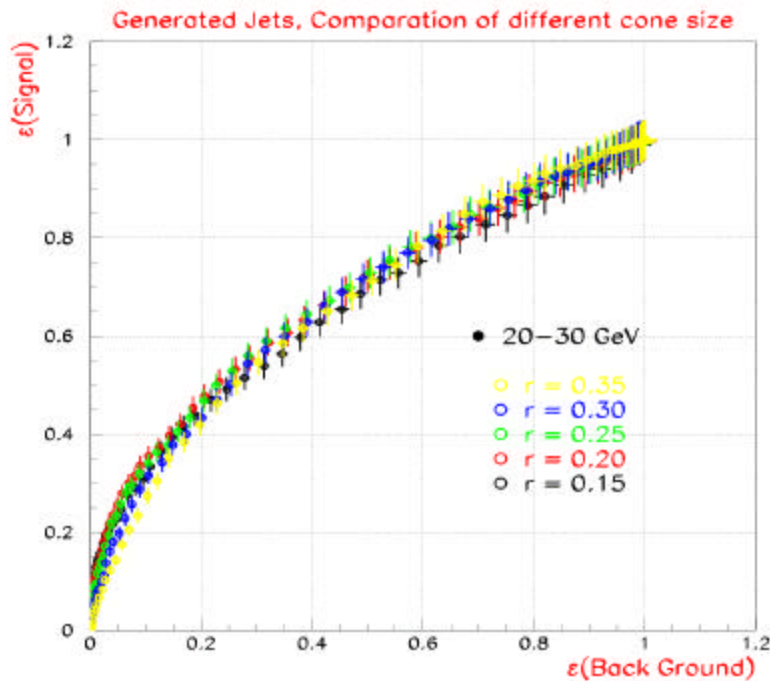
$E_T$  Fraction in cone  $r=0.25$  were used as a cut variable

# Comparison of shape variables



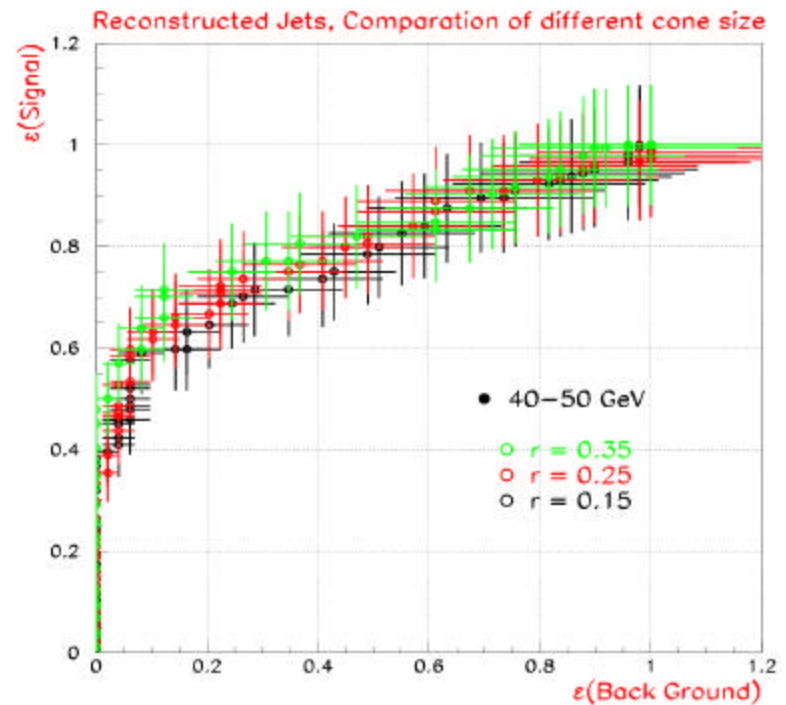
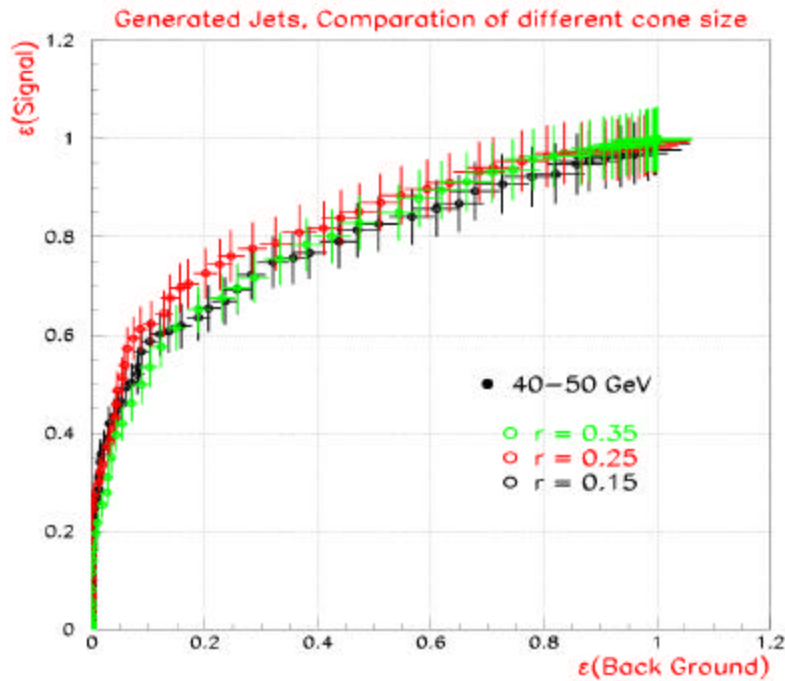
$E_T$  weighted  $r$  compared with  $E_T$  fraction in cone  $r=0.25$   
The results are almost same.

# Comparison of different radius



Different radius were used for comparison.  
They almost give same signal/background efficiency.

# Comparison of different radius



Same results with previous slide but for 40-50 GeV energy range.

# Conclusions

- Results are encouraging
- Both variables gives almost same results
- More statistic needed especially for higher energies
- Same work need to be done with orca 6